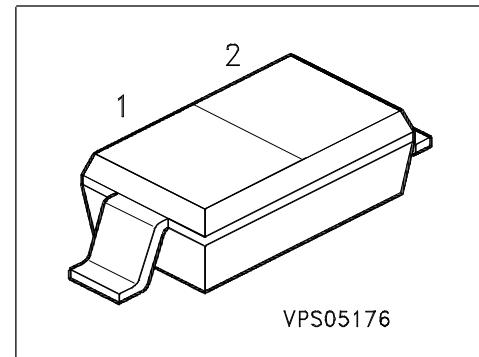


Silicon Tuning Diode**Preliminary data**

- Extended frequency range up to 2.8 GHz
special design for use in TV-sat indoor units
- High capacitance ratio



Type	Marking	Ordering Code	Pin Configuration	Package
BB 837	M	Q62702-B0904	1=C 2=A	SOD-323

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	30	V
Peak reverse voltage ($R \geq 5k\Omega$)	V_{RM}	35	
Forward current	I_F	20	mA
Operating temperature range	T_{op}	55 ... +150	°C
Storage temperature	T_{stg}	55 ... +150	

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current $V_R = 30 \text{ V}$	I_R	-	-	10	nA
Reverse current $V_R = 30 \text{ V}, T_A = 85^\circ\text{C}$	I_R	-	-	200	
AC characteristics					
Diode capacitance $V_R = 1 \text{ V}, f = 1 \text{ MHz}$	C_T	6	6.6	7.2	pF
$V_R = 25 \text{ V}, f = 1 \text{ MHz}$		-	0.55	-	
$V_R = 28 \text{ V}, f = 1 \text{ MHz}$		0.45	0.54	0.65	
Capacitance ratio $V_R = 1 \text{ V}, V_R = 25 \text{ V}, f = 1 \text{ MHz}$	C_{T1}/C_{T25}	-	12	-	
Capacitance ratio $V_R = 1 \text{ V to } 28 \text{ V}, f = 1 \text{ MHz}$	C_{T1}/C_{T28}	9.7	12.2	-	-
Capacitance matching $V_R = 1 \text{ V to } 28 \text{ V}, f = 1 \text{ MHz}$	$\Delta C_T/C_T$	-	-	5	%
Series resistance $V_R = 1 \text{ V}, f = 470 \text{ MHz}$	r_s	-	1.5	-	Ω
Series inductance	L_s	-	1.4	-	nH

Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$

